

Exhibit 4

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1 IN THE CIRCUIT COURT
2 FOR BALTIMORE COUNTY, MARYLAND
3 JEFF ALBAN, et al,
4 Plaintiffs
5 VERSUS CASE No. 03-C-06-010932
6
7 EXXONMOBIL CORPORATION, et al,
8 Defendant
9 * * * * *
10 October 22, 2008
11 REPORTER'S OFFICIAL TRANSCRIPT OF PROCEEDINGS
12 (Trial)
13 BEFORE:
14 HONORABLE MAURICE W. BALDWIN, JR., ASSOCIATE JUDGE
15
16
17
18 REPORTED BY:
19
20 RANDY MACKUBIN (AM Session)
21 BARBARA ZENTZ (PM Session)
22 Official Court Reporters
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1 APPEARANCES:

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3 ON BEHALF OF THE PLAINTIFFS:

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5 STEPHEN SNYDER, ESQUIRE

6 ROBERT J. WELTCHEK, ESQUIRE

7 SCOTT SNYDER, ESQUIRE

8 MICHAEL SNYDER, ESQUIRE

9 TOMKA CHURCH, ESQUIRE

10 JASON A. L. TIMOLL, ESQUIRE

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12 ON BEHALF OF THE DEFENDANTS:

13

14 JAMES F. SANDERS, ESQUIRE

15 WILLIAM STACK, ESQUIRE

16 ANDREW GENDRON, ESQUIRE

17 C. CAREY DEELEY, ESQUIRE

18 CARLOS BOLLAR, ESQUIRE

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1 (WHEREUPON, the jury entered the

2 courtroom.)

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18 I'm sure. That is all I have, Your Honor. It may take
19 me a minute, Mr. Stack, to move my stuff.
20 MR. STACK: Okay.
21 THE COURT: Mr. Stack.
22 MR. STACK: Give me one moment. I'm going to
23 do a little housekeeping if I may.
24 THE COURT: Sure.
25 MR. WELTCHEK: All yours.

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1 MR. STACK: Thanks.
2 CROSS EXAMINATION
3 BY MR. STACK:
4 Q. Good morning, Dr. Rudo. How are you today?
5 A. Good morning. It is good to see you again. I
6 hope I can say that several hours from now.
7 Q. It is always a pleasure to see you, doctor.
8 A. Same here.
9 Q. There are several subjects that I want to
10 discuss with you today. I will ask the gentleman in
11 charge of video, Mr. Ramsmeyer, to bring up HR 1.
12 Pardon me. KR 1. They are quite a few topics which I
13 anticipated your discussing. You did in fact discuss
14 virtually all of them. And those topics would include
15 generally science of toxicology and some of the
16 specific toxicology of MTBE and you're prepared to talk
17 about that one, correct?
18 A. Yes, sir.
19 Q. Exposure assessments in dose analysis. Two

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20 other concepts, general causation and specific
21 causation, which were not necessarily called out but
22 certainly alluded to in your testimony, would you
23 agree?

24 A. Yes, sir.

25 Q. And talking about background contamination,

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1 which is something that wasn't mentioned, specifically
2 the process of risk assessments, then what you did in
3 this case. And then I want to talk about something
4 that we didn't talk about in the context of your direct
5 testimony but nonetheless you alluded to and that is
6 plaintiffs' exposure and exposure is through three
7 different routes: You mentioned them but in the field
8 of toxicology, I think you agree with me, we look at
9 ingestion, which in this case would be drinking the

10 water, am I correct?

11 A. Yes, sir.

12 Q. We look at inhalation, which would be
13 breathing volatile vapors of any of the contaminants in
14 the water which might be encountered when water
15 volatilizes the chemical through either dermal or
16 physical processes, am I correct?

17 A. Yes, sir.

18 Q. And then the last one would be dermal contact,
19 am I correct?

20 A. Yes.

21 Q. And certainly all of these have been studied

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9 A. To a certain degree. And when you are talking
10 about fatal, you are talking about, you know, a dose
11 that is a lethal dose and it also has to take into
12 account the fact that people are going to react to a
13 drug like Tomoxafin or the chemicals that we are
14 talking about in different ways.

15 Q. And with respect to the variability of
16 reactions, you just have a generalized qualitative
17 opinion in this case that any exposure to any amount,
18 irrespective of how the plaintiffs may vary, that that
19 is creating a risk for each of the plaintiffs, right?

20 A. Yes.

21 Q. And without regard to how long the exposure
22 may have been or how much the exposure may have been,
23 any exposure is enough, am I correct?

24 A. That is actually a position that the EPA
25 takes, too.

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1 Q. And but it is your position in this case that
2 every one of the plaintiffs are at risk, irrespective
3 of how long or how much of a particular chemical that
4 they may have been exposed to in their water?

5 A. Yes, it does increase their risk, yes, sir.

6 Q. Now, you base your opinion on this fact that
7 you believe MTBE is a probable human carcinogen,
8 correct?

9 A. Yes, sir.

10 Q. And you also base it on the animal studies and
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11 the three studies which you didn't mention, there is
12 one by Dr. Burleigh-Flayer?

13 A. Yes.

14 Q. And Burleigh-Flayer did one of the inhalation
15 studies, am I correct?

16 A. Yes.

17 Q. And she is a reputable scientist, of some
18 renown, right?

19 A. I'm not familiar with her reputation but
20 familiar with the studies.

21 Q. And the other study was done by Dr. Chun, that
22 is the other one of the three studies?

23 A. Yes. In fact, they worked together on both of
24 those studies.

25 Q. And with respect to the last study, that is

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1 the one that was done by Dr. Belpoggi, am I correct?

2 A. Yes.

3 Q. And so we are clear and the jury is clear, the
4 two studies by Chun and Burleigh Flayer, those were
5 inhalation studies, am I correct?

6 A. Yes, sir.

7 Q. And the study by Dr. Belpoggi was a gavage
8 study, correct?

9 A. Correct.

10 Q. And gavage study means they put a feeding tube
11 down some poor little rat's throat and force feeding
12 them with a mineral oil based substance that has MTBE

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13 in it, correct?

14 A. Yes, sir.

15 Q. And with regard to the dosages that were
16 administered to those rats in this gavage study, they
17 did a dosage based on how many kilogram of body weight,
18 am I correct?

19 A. Yes.

20 Q. Can you extrapolate from that and tell the
21 jury in this case how much MTBE a human being would
22 have to ingest to have the same effects that the rats
23 had in the Belpoggi study?

24 A. I think you are talking about two completely
25 different things here. You might want to rephrase the

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1 question in terms of the animal studies. When we do
2 animal studies for cancer, they are generally
3 considered to be high dose studies.

4 Q. Mega dose is what they are called, am I
5 correct?

6 A. No. Never seen that term used.

7 Q. Never seen that term?

8 A. They are high.

9 Q. Can you answer the question? Can you --

10 MR. WELTCHEK: He was answering. He cut
11 him off.

12 MR. STACK: Nonresponsive.

13 MR. WELTCHEK: I object.

14 THE COURT: Have you finished your answer yet?

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15 THE WITNESS: No, sir.

16 THE COURT: Go ahead.

17 THE WITNESS: The animal studies are
18 considered high dose studies. And the reason that they
19 use high dose studies in animals is because they really
20 want to try to make sure that they can determine and
21 see clearly any effects that they have.

22 Part of the process is that the levels in
23 animals are extrapolated in terms of risk, not in terms
24 of dose to the animal and dose to the human in terms of
25 what you would see in comparison to the animal. We

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1 don't do that. That is not done in toxicology. You
2 can have an expert that can sit down and say this is
3 what it is --

4 Q. We will do --

5 A. Excuse me. I would like to finish the answer.
6 It is a question you asked. It is not something we do
7 in toxicology. We don't sit here and say, well, an
8 animal had a high dose study and what level that high
9 dose will cause that high dose effect in humans. In
10 toxicology, that is not the kind of study that is done.
11 It is not the kind of approach that is done. The
12 approach is to take the animal level that causes the
13 tumor and extrapolate it to humans, try to make sure we
14 understand what level it could be caused, the mechanism
15 by which it could cause that tumor, how does it do it,
16 which is very, very important. And the idea is to

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17 extrapolate it to humans because humans have so much
18 variability in how they are going to respond from
19 person to person.

20 Meanwhile, in the animal studies, we are using
21 strains of animals that we would hope to have a
22 consistent finding and consistent reaction in those
23 animals.

24 MR. STACK: I move to strike as
25 nonresponsive.

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1 Q. The basic principle question I asked is could
2 you tell the jury in terms of exposure how much a human
3 would have to be exposed to in terms of MTBE in order
4 to have the same effects as the animals in the test
5 that was performed with rats?

6 THE COURT: I will deny the motion but the
7 witness may answer this question.

8 A. I'm going to pretty much stay with my last
9 answer. I mean, if you want to sit down and calculate,
10 we can calculate, you know, the levels that were used
11 in the animals and, you know, body weight basis on
12 humans but it is not applicable. It is not done. It
13 is not considered in toxicology in terms of discussing
14 human risk. It is more of an approach that would be
15 used by say an industry representative who wants to
16 say, well, this is a high dose in animals, it will be a
17 high dose in humans. And we have so many chemicals and
18 MTBE is looking more and more like one of those

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19 chemicals that is a low dose chemical. So it doesn't
20 apply.

21 Q. You have done testing on animals yourself?

22 A. Long ago, yes, sir.

23 Q. You tested rats and also tested dogs, didn't
24 you?

25 A. Actually, I went back and looked at that and I

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1 remember I had tremendous guilt about it, but I
2 actually did not do the testing myself on the dogs. It
3 was done as, there was a physician, Dr. Myers, over at
4 Duke University who was at the time one of the first
5 people to do liver transplants in humans, and as part
6 of his training he was practicing on dogs to learn the
7 process to do it so that it could be safe when he did
8 it in people.

9 Q. And you were concerned because some of the
10 dogs in those experiments were sacrificed, am I
11 correct?

12 A. State that again.

13 Q. I thought you expressed some concern yourself?

14 A. I did. Working with animals is something that
15 you know, long after the fact I could never conceive of
16 doing it again. It was just -- it was just something
17 that never sat well with me, which is part of the
18 reason that I do what I do today.

19 Q. Now, with regard to all the testing that you
20 did and your experience, you have never tested MTBE in

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21 a lab; is that correct?

22 A. No, sir.

23 Q. You only tested the polycyclic aromatic
24 hydrocarbons, am I correct?

25 A. Yes.

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1 Q. And you told the jury that the results of
2 animal testing are relevant to toxicological analysis,
3 am I correct?

4 A. Could you restate that?

5 Q. That in the context of your opinions, you
6 consider animal testing results as relevant and that
7 generally, in a practice of toxicology, people look at
8 and accept the results of animal testing, am I correct?

9 A. Yes. Thank you for rephrasing that.

10 Q. And with respect to the testing process, one
11 of the things you look at is the mechanism that causes
12 a problem, am I correct?

13 A. If you can, yes.

14 Q. And with respect to toxicological testing,
15 there are some tests which have been qualified, maybe
16 even rejected because the mechanism of carcinogenicity
17 has no relevance to mankind, right?

18 A. Yes, sir.

19 Q. And with respect to the testing that has been
20 done so far, we certainly know and everyone knows that
21 testing in animals and humans sometimes have different
22 results; things that are toxic to animals are not

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23 necessarily toxic to humans and vice versa, correct?

24 A. Yes, sir.

25 Q. The people who own dogs and I believe, as I

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1 recall, you own a g too?

2 A. Cat.

3 Q. Did?

4 A. Cat.

5 Q. And you know that Theobromine is toxic to dogs
6 and Theobromine is something that everybody who loves
7 their -- there are probably a lot of people in the jury
8 that love chocolate and one of the primary ingredients
9 of chocolate is Theobromine, which is fatal to dogs,
10 correct?

11 A. Correct.

12 Q. So it is toxic to dogs but not to humans,
13 right?

14 A. I haven't studied that that much. So I will
15 grant you that.

16 Q. And with respect to the tests of animals, you
17 also know that there are needs to check the findings?
18 You talk about how the group, which we refer to as
19 OEHHA in California, reviewed the findings and
20 conclusions of the Tox studies that you are relying on,
21 am I correct?

22 A. Yes.

23 Q. And they looked at a variety of factors and I
24 want to mention a couple of them because we are going

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25 to talk about them in light of some of the studies you

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1 are relying upon. They talk about the incidences of
2 cancer in a control group. A control group is a group
3 of animals that aren't exposed, correct?

4 A. Yes, sir.

5 Q. And what you try to do is try to look at
6 animals in a controlled group and compare them to the
7 exposed group and see whether or not there are any
8 incidences of cancer, or whatever the outcome is you
9 are looking for in a controlled group and compare it to
10 what happens to the test group, am I right?

11 A. Yes.

12 Q. Test group is the group that you actually have
13 exposed to the chemical, correct?

14 A. Yes, sir.

15 Q. And with regard to the incidence of cancers in
16 the control group, some of these strains of rats that
17 you talked about, the Sprague Dawley rat, the T 344
18 and --

19 A. Fisher 344.

20 Q. Fisher 344, those animals can spontaneously
21 develop cancer, am I correct?

22 A. Yes, sir.

23 Q. And they spontaneously developed cancer, am I
24 right?

25 A. To a certain degree, yes.